

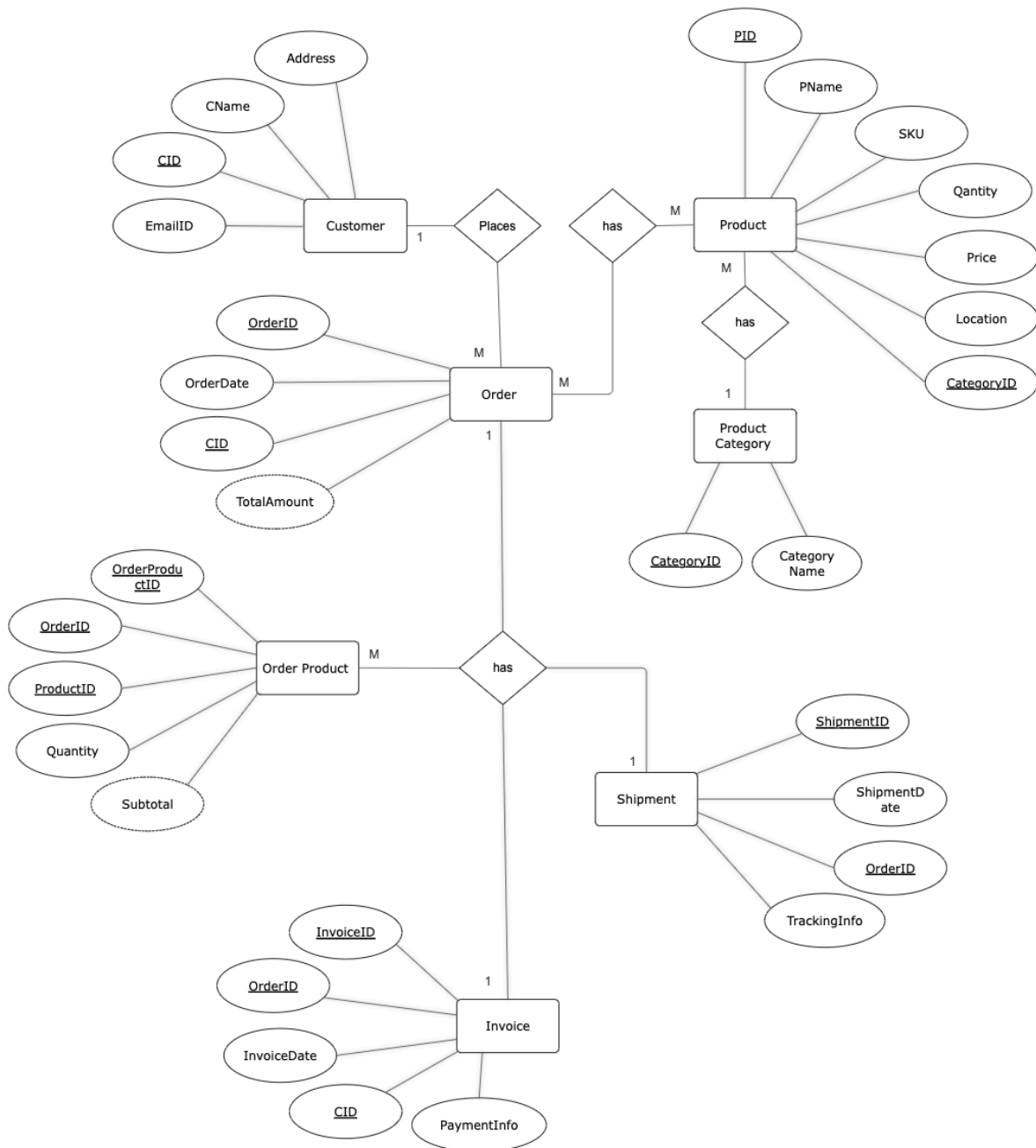
CS425 Final Project_Team-T_Inventory Management System

S.No	Name	A-number	Contribution(%)
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1st Deliverable (Design a relational database)

ER Diagram - Inventory Management System

Entity Relationship Diagram - Inventory Management System



Relation Schema

- Product (PID, PName, SKU, Quantity, Price, Location, CategoryID)
- Customer(CID, CName, Address, EmailAddress)

- ProductCategory(CategoryID, CategoryName)
- Order(OrderID, CustomerID, OrderDate, TotalAmount)
- Order Product(OrderProductID, OrderID, ProductID, Quantity, Subtotal)
- Shipment(ShipmentID, ShipmentDate, OrderID, TrackingInfo)
- Invoice(InvoiceID, OrderID, InvoiceDate, CID, PaymentInfo)

Business Rules

- An order must be associated with at least one product and products listed in the order must be available in the inventory.
- A customer can place multiple orders, and the order must be associated with exactly one customer.
- A product must belong to exactly one category, and that category may have zero or more products associated with it.
- An order product must be associated with exactly one order and one product. Subtotal represents the cost of the quantity of the product in the order and must be calculated based on the product price and quantity.
- A shipment must be associated with exactly one order and order can be shipped zero or one time.
- An invoice must be associated with exactly one order and order can be invoiced zero or one time.
- Customer addresses must be complete and accurate for shipping purposes.

Total participation =

Foreign keys in ERD** (only in relation schema)